

U.S. DEPARTMENT OF TRANSPORTATION

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

LABORATORY TEST PROCEDURE

FOR

FMVSS 114

Theft Protection



Safety ASSURANCE
Office of Vehicle Safety Compliance
Room 6115, NSA-30
400 Seventh Street, SW
Washington, DC 20590

OVSC LABORATORY TEST PROCEDURE NO. 114

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1. PURPOSE AND APPLICATION

The Office of Vehicle Safety Compliance (OVSC) provides contracted laboratories with Laboratory Test Procedures (TPs) which serve as guidelines for obtaining compliance test data. The data are used to determine if a specific vehicle or item of motor vehicle equipment meets the minimum performance requirements of the subject Federal Motor Vehicle Safety Standard (FMVSS). The purpose of the OVSC Laboratory Test Procedures is to present a uniform testing and data recording format, and provide suggestions for the use of specific equipment and procedures. Any contractor interpreting any part of an OVSC Laboratory Test Procedure to be in conflict with a Federal Motor Vehicle Safety Standard or observing any deficiencies in a Laboratory Test Procedure is required to advise the Contracting Officer's Technical Representative (COTR) and resolve the discrepancy prior to the start of compliance testing.

The OVSC Laboratory Test Procedures are not intended to limit or restrain a contractor from developing or utilizing any testing techniques or equipment which will assist in procuring the required compliance test data.

NOTE: The OVSC Laboratory Test Procedures, prepared for use by independent laboratories under contract to conduct compliance tests for the OVSC, are not intended to limit the requirements of the applicable FMVSS(s). In some cases, the OVSC Laboratory Test Procedures do not include all of the various FMVSS minimum performance requirements. Sometimes, recognizing applicable test tolerances, the Test Procedures specify test conditions which are less severe than the minimum requirements of the standards themselves. Therefore, compliance of a vehicle or item of motor vehicle equipment is not necessarily guaranteed if the manufacturer limits certification tests to those described in the OVSC Laboratory Test Procedures.

2. GENERAL REQUIREMENTS

FMVSS 114 specifies requirements primarily for theft protection to reduce the incidence of crashes resulting from unauthorized operation of a vehicle. It also specifies requirements to reduce the incidents of crashes resulting from the rollaway of parked vehicles with automatic transmissions as a result of children moving the shift mechanism out of the “park” position. This standard applies to passenger cars, and trucks and multipurpose passenger vehicles having a Gross Vehicle Weight Rating (GVWR) of 4536 kilograms or less. It does not apply to walk-in van-type vehicles.

Each vehicle shall have:

- A. A key-locking system that, whenever the key is removed, will prevent the normal activation of the vehicle's engine and either steering or forward self-mobility of the vehicle or both.
- B. A warning to the driver activated whenever the key to the key-locking system has been left in the locking system and the driver's door is opened.

Additional requirements for vehicles with automatic transmissions include:

- C. The key-locking system, in those vehicles with an automatic transmission which has a “park” position, shall prevent removal of the key unless the transmission or transmission shift lever is locked in “park” or becomes locked in “park” as the direct result of removing the key.
- D. Vehicles shall not move more than 150mm on a 10% grade when the transmission or transmission shift lever is locked in “park”.
- E. Except when a vehicle is in “park”, the means for deactivating the vehicle's engine shall not activate any device installed to prevent the vehicle's steering or forward self-mobility or both.

Optional devices for vehicles with automatic transmissions include:

- F. Vehicles may permit key removal when electrical failure of this system (including battery discharge) occurs or may have a device which, when activated, permits key removal provided that, in either case, steering is prevented upon key removal.
- G. Vehicles may also have a device which, when activated, permits moving the transmission shift lever from “park” after the key has been removed provided that steering is prevented.

Refer to the latest applicable revision of the FMVSS for the full text of requirements and related information.

3. SECURITY

The contractor shall provide appropriate security measures to protect the OVSC test vehicles from unauthorized personnel during the entire compliance testing program. The contractor is financially responsible for any acts of theft and/or vandalism which occur during the storage of test vehicles. Any security problems which arise shall be reported by telephone to the Industrial Property Manager (IPM), Office of Contracts and Procurement, within two working days after the incident. A letter containing specific details of the security problem will be sent to the IPM (with copy to the COTR) within 48 hours. The contractor shall protect and segregate the photographs and data that evolve from compliance testing. No information concerning the vehicle safety compliance testing program shall be released to anyone except the COTR, unless specifically authorized by the COTR or the COTR's Branch or Division Chief.

NOTE: NO INDIVIDUALS, OTHER THAN CONTRACTOR PERSONNEL DIRECTLY INVOLVED IN THE COMPLIANCE TESTING PROGRAM, SHALL BE ALLOWED TO WITNESS ANY VEHICLE COMPLIANCE TEST UNLESS SPECIFICALLY AUTHORIZED BY THE COTR.

4. GOOD HOUSEKEEPING

The contractor shall maintain the entire vehicle compliance testing area, test fixtures and instrumentation in a neat, clean and painted condition with test instruments arranged in an orderly manner consistent with good test laboratory housekeeping practices.

5. TEST SCHEDULING AND MONITORING

The contractor shall submit a test schedule to the COTR prior to testing. Tests shall be completed as required in the contract. Scheduling shall be adjusted to permit sample motor vehicles to be tested to other FMVSS as may be required by the OVSC. All testing shall be coordinated to allow monitoring by the COTR.

6. TEST DATA DISPOSITION

The contractor shall make all vehicle preliminary compliance test data available to the COTR on location within four hours after the test. Final test data, including digital printouts and computer generated plots (if applicable), shall be furnished to the COTR within five working days. Additionally, the contractor shall analyze the preliminary test results as directed by the COTR. All backup data sheets, strip charts, recordings, plots, technicians notes, etc., shall be either sent to the COTR or destroyed at the conclusion of each delivery order, purchase order, etc.

7. GOVERNMENT FURNISHED PROPERTY (GFP)

Inasmuch as the compliance test requirements for FMVSS 114 are nondestructive in nature and relatively simple, the Government will **NOT** furnish test vehicles for this purpose unless specifically stipulated in the contract. If GFP vehicles are authorized by contractual agreement, the contractor is responsible for the following.

ACCEPTANCE OF TEST VEHICLES

The contractor has the responsibility of accepting each GFP test vehicle whether delivered by a new vehicle dealership or another vehicle transporter. In both instances, the contractor acts in the OVSC's behalf when signing an acceptance of the GFP test vehicle delivery. When a GFP vehicle is delivered, the contractor must check to verify the following:

- A. All options listed on the "window sticker" are present,
- B. Tires and wheels are new and the same as listed,
- C. There are no dents or other interior or exterior flaws,
- D. The vehicle has been properly prepared and is in running condition,
- E. Owner's manual, warranty document, consumer information, and extra set of keys are present, and
- F. Proper fuel filler cap is supplied on the vehicle.

A Vehicle Condition form will be supplied to the contractor by the COTR when the test vehicle is transferred from a new vehicle dealership or between test contracts. The upper half of the form is used to describe the vehicle as initially accepted. The lower half of the Vehicle Condition form provides space for a detailed description of the post-test condition. The contractor must complete a Vehicle Condition form for each vehicle and deliver it to the COTR with the Final Test Report or the report will not be accepted for payment.

NOTIFICATION OF COTR

The COTR must be notified within 24 hours after a vehicle has been delivered. In addition, if any discrepancy or damage is found at the time of delivery, a copy of the Vehicle Condition form shall be sent to the COTR immediately.

8. CALIBRATION OF TEST INSTRUMENTS

Before the contractor initiates the safety compliance test program, a test instrumentation calibration system shall be implemented and maintained in accordance with established calibration practices. The calibration system shall include the following as a minimum:

- A. Standards for calibrating the measuring and test equipment will be stored and used under appropriate environmental conditions to assure their accuracy and stability.
- B. All measuring instruments and standards shall be calibrated by the contractor, or a commercial facility, against a higher order standard at periodic intervals NOT TO EXCEED TWELVE (12) MONTHS! Records, showing the calibration traceability to the National Institute of Standards and Technology (NIST), shall be maintained for all measuring and test equipment.
- C. All measuring and test equipment and measuring standards will be labeled with the following information:
 - (1) Date of calibration
 - (2) Date of next scheduled calibration
 - (3) Name of the technician who calibrated the equipment
- D. A written calibration procedure shall be provided by the contractor which includes as a minimum the following information for all measurement and test equipment:
 - (1) Type of equipment, manufacturer, model number, etc.
 - (2) Measurement range
 - (3) Accuracy
 - (4) Calibration interval
 - (5) Type of standard used to calibrate the equipment (calibration traceability of the standard must be evident)
- E. Records of calibration for all test instrumentation shall be kept by the contractor in a manner which assures the maintenance of established calibration schedules. All such records shall be readily available for inspection when requested by the COTR. The calibration system will need the acceptance of the COTR before the test program commences.

Further guidance is provided in the International Standard ISO 10012-1, "Quality Assurance Requirements for Measuring Equipment" and American National Standard ANSI/NCSL Z540-1, "Calibration Laboratories and Measuring and Test Equipment - General Requirements".

9. SUGGESTED TEST EQUIPMENT

- A. Clinometer
- B. Metric scale ruler or tape measure
- C. Tire pressure gauge

10. PHOTOGRAPHIC DOCUMENTATION

Photographs shall be black and white, 8 x 10 inches, and legible. A tag, label or placard identifying the test vehicle make and model, NHTSA number, and FMVSS number, as a minimum, shall appear in each photograph and be legible. Each photograph shall be labeled as to subject matter in the contractor's Final Test Report. As a minimum the following photographs shall be included:

- A. 3/4 Frontal - Left Side View of the test vehicle
- B. Vehicle Certification Label
- C. Close-up of ignition switch
- D. Device which allows key removal if applicable
(Requirement S4.2.2(a))
- E. Device which allows moving shift indicator if applicable
(Requirement S4.2.2(b))
- F. Any damage or apparent test failure that cannot be seen in the above photographs

11. DEFINITIONS

KEY

Includes any other device designed and constructed to provide a method for operating a locking system which is designed and constructed to be operated by that device.

CURB WEIGHT

Means the weight of a motor vehicle with standard equipment, maximum capacity of engine fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine.

12. PRETEST REQUIREMENTS

Prior to conducting any compliance tests, contractors are required to submit a detailed in-house compliance test procedure (TP) which includes a step-by-step description of the methodology to be used and a detailed checkoff list. It shall list all test equipment actually used along with instrument accuracy and calibration due date for each. There shall be no contradiction between this TP, the applicable FMVSS revision and the contractor's in-house TP. The contractor shall conspicuously identify revisions to its in-house procedures and ensure that obsolete documents are not used.

Written approval must be obtained from the COTR before initiating the compliance test program so that all parties are in agreement.

TEST DATA LOSS

A compliance test is not to be conducted unless all of the conditions specified in this TP have been met. Failure of a contractor to obtain the required test data or to maintain acceptable limits on test parameters in the manner outlined in this TP may require a retest at the expense of the contractor. Retest costs include all costs associated with conducting the retest, and may include the cost of an equivalent replacement vehicle (or equipment item). The original test vehicle used for the invalid test shall remain the property of OVSC, and the retest vehicle shall remain the property of the contractor.

The NHTSA Contracting Officer is the only person authorized to notify the contractor that a retest is required. The retest shall be conducted within two (2) weeks after receipt of notification by the Contracting Officer that a retest is required. If a retest is conducted, no test report is required for the original test.

13. COMPLIANCE TEST EXECUTION

Test Personnel Performance

Personnel supervising and/or performing the compliance test program shall be thoroughly familiar with the requirements, test conditions, and equipment for the test to be conducted.

Compliance Test

Unless noted otherwise all tests shall be conducted with the parking brake fully applied. Whenever changing transmission shift lever positions the driver's foot shall remain on the service brake. The vehicle shall be tested at curb weight plus 91 kg (including the driver) with tires at manufacturer's recommended inflation pressure. Except where specified otherwise, the test surface shall be level.

TESTING FOR ALL VEHICLES (refer to Data Sheet 1)

A. FMVSS 114 Requirement S4.2

Each vehicle shall have a key-locking system that, whenever the key is removed, will prevent the normal activation of the vehicle's engine and either steering or forward self-mobility of the vehicle or both.

TEST

- (1) With the ignition key removed try to start the engine by turning the ignition switch or any other means provided by the manufacturer.
- (2) Insert the key into the ignition switch, start the engine and center the steering wheel.
- (3) Turn off the engine and remove the key.
- (4) Determine if steering locks at any wheel position and record on Data Sheet.
- (5) Determine if the locking system prevents forward self mobility whenever the key is removed. If the vehicle has a means to prevent forward self-mobility describe the means.

13. COMPLIANCE TEST EXECUTION.....Continued**B. FMVSS 114 Requirement S4.5**

Each vehicle shall have a warning to the driver activated whenever the key to the key-locking system has been left in the locking system and the driver's door is opened. The warning to the driver need not operate after the key has been manually withdrawn to a position from which it may not be turned, when the key-locking system is in the "on" or "start" position, or after the key has been inserted in the locking system and before it has been turned.

TEST

- (1) Start-up and then shut off the engine.
- (2) With the ignition key still in the ignition switch in the "off" position, open the driver's door. There shall be a warning signal.
- (3) Repeat with the ignition switch in all other positions except "on" and "start".

NOTE PER S4.1: Open-body type vehicles that are manufactured for operation without doors and that either have no doors or have doors that are designed to be easily attached to and removed from the vehicle by the vehicle owner are not required to have a warning.

ADDITIONAL TESTING REQUIREMENTS FOR AUTOMATIC TRANSMISSION VEHICLES ONLY (refer to Data Sheet 2)**C. FMVSS 114 Requirement S4.2.1(a)(2)**

For each vehicle equipped with an automatic transmission which has a "park" position, the key-locking system shall prevent removal of the key unless the transmission or transmission shift lever is locked in "park" or becomes locked in park as the direct result of removing the key.

TEST

- (1) Start the engine.
- (2) Shift the transmission to the "drive" position and shut off the engine.
- (3) Try to remove the key from each switch position. The system shall prevent key removal.

13. COMPLIANCE TEST EXECUTION.....Continued

- (4) Shift the transmission shift lever to each of the other shift lever detent positions (except park) and try to remove the key from each ignition switch position. The system shall prevent key removal at **ALL** of these shift lever positions. In the event that the key can be removed at any of the detent positions, a mechanism shall exist which, upon key removal, the vehicle's transmission or transmission shift lever shall become locked in park as the direct result of removing the key. If such a mechanism exists, describe the mechanism and its function.
- (5) Move the transmission shift mechanism to any position between the detent positions where it will remain without assistance. Try to remove the key from each possible key position in each such shift position. The system shall prevent key removal at **ALL** of these shift lever positions. In the event that the key can be removed at any of the corresponding positions, a mechanism shall exist which, upon key removal, the vehicle's transmission or transmission shift lever shall become locked in park as the direct result of removing the key. If such a mechanism exists, describe the mechanism and its function.
- (6) Return the transmission shift lever to the "park" position. Remove the ignition key and then try to shift the transmission shift lever to any other position. The transmission shall be locked in "park".

D. FMVSS 114 Requirement S4.2.1(a)(3)

Vehicles with automatic transmissions shall not move more than 150mm on a 10% grade when the transmission or transmission shift lever is locked in "park".

TEST

- (1) Drive the vehicle forward up a 10% grade (+5%, -1%) and stop it with the service brakes. Apply the parking brake if present.
- (2) Move the transmission shift lever to the "park" position. Mark vehicle position relative to the grade surface.
- (3) Release the parking brake. Release the services brakes. Remove the ignition key.

13. COMPLIANCE TEST EXECUTION.....Continued

- (4) Verify that the transmission shift lever is locked in the “park” position.
- (5) Measure distance the vehicle, at rest, has moved from the position noted prior to the release of the brakes.
- (6) If the vehicle fails on a grade of more than 10%, recheck and adjust weight and tire pressure if necessary, and repeat steps (1) through (5) on a grade of 9% to 10%.

E. FMVSS 114 Requirement S4.3

Except when an automatic transmission vehicle is in “park” the means for deactivating the vehicle’s engine shall not activate any device installed which would prevent the vehicle’s steering or forward self-mobility or both.

TEST

- (1) Start the engine and shift the transmission shift lever to the “drive” position. Shut off the engine. Release parking and service brakes. Determine if the steering wheel can be rotated without locking. Determine if the vehicle is free to roll forward.
- (2) Repeat step (1) for each additional shift lever position except “park” or “reverse”.

OPTIONAL DEVICES - **AUTOMATIC** TRANSMISSION VEHICLES (refer to Data Sheet 3)

F. FMVSS 114 Requirement S4.2.2(a)

Vehicles may permit key removal when electrical failure of this system (including battery discharge) occurs or may have a device which, when activated, permits key removal provided that, in either case, steering is prevented upon key removal. If a device is utilized, the means for activating this device must be covered by a non-transparent surface which, when installed, prevents sight of and activation of the device and which is removable only by use of a screwdriver or other tool.

13. COMPLIANCE TEST EXECUTION.....Continued

TEST

- (1) Check Owner's Manual to determine if the vehicle will permit key removal when an electrical failure occurs and the transmission is in a position other than "park". If the vehicle has this electrical failure capability continue to step (2), otherwise, proceed to step (3).
- (2) Start the engine and shift the transmission shift lever out of park to any other shift lever position. Shut off vehicle engine and disconnect battery. Try to remove key from the ignition switch. If the key can be removed the steering wheel shall lock.
- (3) Check Owner's Manual and inspect vehicle to determine if the vehicle is equipped with a device which will permit key removal when the transmission is in a position other than "park". If the vehicle is equipped with such a device continue with steps (4) through (7).
- (4) Observe if the means for activating this device is covered with a non-transparent surface which prevents sight of and activation of the device.
- (5) Determine if this non-transparent surface is removable only by use of a screwdriver or other tool.
- (6) Describe and photograph the device, its cover and its location.
- (7) Start the engine. Shift the transmission shift lever to the "drive" position and shut off the engine. Activate this device. Describe how the device was activated. The device, once activated, shall allow key removal in transmission shift lever positions other than "park". Upon activation of this device, if the key can be removed, the steering wheel shall lock.

G. FMVSS114 Requirement S4.2.2(b)

Vehicles may also have a device which, when activated, permits moving the transmission shift lever from "park" after the key has been removed provided that steering is prevented. The device may be operated by the key or another means which must be covered by a non-transparent surface which, when installed, prevents sight of and activation of the device and is removable only by use of screwdriver or other similar tool.

13. COMPLIANCE TEST EXECUTION.....Continued

TEST

- (1) Check Owner's Manual and inspect vehicle to determine if the vehicle is equipped with a device which when activated permits moving the transmission shift lever from "park" after the key is removed. If the vehicle is equipped with such a device continue to step (2).
- (2) Observe if the means for activating the device is covered with a non-transparent surface which prevents sight of and activation of the device.
- (3) Determine if this non-transparent surface is removable only by use of a screwdriver or other tool.
- (4) Describe and photograph the device, its cover and its location.
- (5) Verify the transmission shift lever is in the "park" position. Remove the ignition key and then activate this device. Describe how the device was activated. The device, once activated, shall allow the transmission shift lever to be shifted out of the "park" position. Upon activation of this device the steering wheel shall remain locked.

14. POST TEST REQUIREMENTS

The contractor shall check data sheets and photographs. Make sure data are recorded in all data blocks and authorized signatures are affixed to applicable test data sheets.

15. REPORTS

15.1 MONTHLY STATUS REPORTS

The contractor shall submit a monthly Test Status Report and a Vehicle or Equipment Status Report to the COTR. The Vehicle Status Report shall be submitted until all vehicles or items of equipment are disposed of. Samples of the required Monthly Status Reports are contained in the report forms section.

15.2 APPARENT NONCOMPLIANCE

Any indication of a test failure shall be communicated by telephone to the COTR within 24 hours with written notification mailed within 48 hours (Saturdays and Sundays excluded). A Notice of Test Failure (see report forms section) with a copy of the particular compliance test data sheet(s) and preliminary data plot(s) shall be included. In the event of a test failure, a post test calibration check of some critically sensitive test equipment and instrumentation may be required for verification of accuracy. The

15. REPORTS....Continued

necessity for the calibration shall be at the COTR's discretion and shall be performed without additional costs to the OVSC.

15.3 FINAL TEST REPORTS

15.3.1 COPIES

In the case of a test failure, **SEVEN** copies of the Final Test Report shall be submitted to the COTR for acceptance within three weeks of test completion.

The Final Test Report format to be used by all contractors can be found in the "Report Section".

Where there has been no indication of a test failure, **THREE** copies of each Final Test Report shall be submitted to the COTR within three weeks of test completion. Payment of contractor's invoices for completed compliance tests may be withheld until the Final Test Report is accepted by the COTR. Contractors are requested to NOT submit invoices before the COTR is provided copies of the Final Test Report.

Contractors are required to submit the first Final Test Report in draft form within two weeks after the compliance test is conducted. The contractor and the COTR will then be able to discuss the details of both test conduct and report content early in the compliance test program. Contractors are required to PROOF READ all Final Test Reports before submittal to the COTR. The OVSC will not act as a report quality control office for contractors. Reports containing a significant number of errors will be returned to the contractor for correction, and a "hold" will be placed on invoice payment for the particular test.

15.3.2 REQUIREMENTS

The Final Test Report, associated documentation (including photographs) are relied upon as the chronicle of the compliance test. The Final Test Report will be released to the public domain after review and acceptance by the COTR. For these reasons, each final report must be a complete document capable of standing by itself.

The contractor should use **detailed** descriptions of all compliance test events. Any events that are not directly associated with the standard but are of technical interest should also be included. The contractor should include as much **detail** as possible in the report. Instructions for the preparation of the first three pages of the final test report are provided below for the purpose of standardization.

15. REPORTS....Continued

15.3.3 FIRST THREE PAGES

A. FRONT COVER

A heavy paperback cover (or transparency) shall be provided for the protection of the final report. The information required on the cover is as follows:

- (1) Final Report Number such as 114-ABC-9X-001, where –

114 is the FMVSS tested
 ABC are the initials for the laboratory
 9X is the Fiscal Year of the test program (or 0X after 1999)
 001 is the Group Number (001 for the 1st test,
 002 for the 2nd test, etc.)

- (2) Final Report Title And Subtitle such as

SAFETY COMPLIANCE TESTING FOR FMVSS 114
 Theft Protection

World Motors Corporation
 199X Ace Super Coupe
 NHTSA No. CX0401

- (3) Contractor's Name and Address such as

COMPLIANCE TESTING LABORATORIES, INC.
 4335 West Dearborn Street
 Detroit, Michigan 48090

NOTE: DOT SYMBOL WILL BE PLACED BETWEEN ITEMS (3) AND (4)

15. REPORTS....Continued

- (4) Date of Final Report completion
- (5) The words "FINAL REPORT"
- (6) The sponsoring agency's name and address as follows

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Assurance
Office of Vehicle Safety Compliance
400 Seventh Street, SW
Room 6115 (NSA-30)
Washington, DC 20590

15. REPORTS....Continued**B. FIRST PAGE AFTER FRONT COVER**

A disclaimer statement and an acceptance signature block for the COTR shall be provided as follows

This publication is distributed by the U. S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

Prepared By: _____

Approved By: _____

Approval Date: _____

FINAL REPORT ACCEPTANCE BY OVSC COTR:

Accepted By: _____

Acceptance Date: _____

15. REPORTS....Continued**C. SECOND PAGE AFTER FRONT COVER**

A completed Technical Report Documentation Page (Form DOT F1700.7) shall be completed for those items that are applicable with the other spaces left blank. Sample data for the applicable block numbers of the title page follows.

Block 1 — REPORT NUMBER

114-ABC-9X-001

Block 2 — GOVERNMENT ACCESSION NUMBER

Leave blank

Block 3 — RECIPIENT'S CATALOG NUMBER

Leave blank

Block 4 — TITLE AND SUBTITLE

Final Report of FMVSS 114 Compliance Testing of 199X Ace Super Coupe, NHTSA No. CX0401

Block 5 — REPORT DATE

March 1, 199X or March 1, 200X

Block 6 — PERFORMING ORGANIZATION CODE

ABC

Block 7 — AUTHOR(S)

John Smith, Project Manager
Bill Doe, Project Engineer

Block 8 — PERFORMING ORGANIZATION REPORT NUMBER

ABC-DOT-114-001

15. REPORTS....Continued**Block 9 — PERFORMING ORGANIZATION NAME AND ADDRESS**

ABC Laboratories
405 Main Street
Detroit, MI 48070

Block 10 — WORK UNIT NUMBER

Leave blank

Block 11 — CONTRACT OR GRANT NUMBER

DTNH22-9X-D-12345

Block 12 — SPONSORING AGENCY NAME AND ADDRESS

U.S. Department of Transportation
National Highway Traffic Safety Administration
Safety Assurance
Office of Vehicle Safety Compliance (NSA-30)
400 Seventh Street, SW, Room 6115
Washington, DC 20590

Block 13 — TYPE OF REPORT AND PERIOD COVERED

Final Test Report
Feb. 15 to Mar. 15, 199X (or 200X)

Block 14 — SPONSORING AGENCY CODE

NSA-30

Block 15 — SUPPLEMENTARY NOTES

Leave blank

15. REPORTS....Continued**Block 16 — ABSTRACT**

Compliance tests were conducted on the subject 199X Ace Super 2-door coupe in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure No. TP-114-0X for the determination of FMVSS 114 compliance. Test failures identified were as follows:

None

NOTE: Above wording must be shown with appropriate changes made for a particular compliance test. Any questions should be resolved with the COTR.

Block 17 — KEY WORDS

Compliance Testing
Safety Engineering
FMVSS 114

Block 18 — DISTRIBUTION STATEMENT

Copies of this report are available from--
National Highway Traffic Safety Administration
Technical Reference Division
Room 5108 (NAD-40)
400 Seventh St., SW
Washington, DC 20590

Block 19 — SECURITY CLASSIFICATION OF REPORT

Unclassified

Block 20 — SECURITY CLASSIFICATION OF PAGE

Unclassified

Block 21 — NUMBER OF PAGES

Add appropriate number

Block 22 — PRICE

Leave blank

15. REPORTS....Continued

15.3.4 TABLE OF CONTENTS

Final test report Table of Contents shall include the following:

Section 1 - Purpose of Compliance Test

Section 2 - Test Procedure and Discussion of Results

Section 3 - Test Data

Section 4 - Test Equipment List and Calibration Due Dates (if applicable)

Section 5 - Photographs

Section 6 - Vehicle Owner's Manual (pages concerning special devices, if applicable)

Section 7 - Notice of Test Failure (if applicable)

16. DATA SHEETS

**FMVSS 114, THEFT PROTECTION
DATA SHEET 1 - ALL VEHICLES**

TEST DATE: _____ LAB.: _____

CONTRACT: DTNH22- _____ VEH. NHTSA NO.: _____

VIN: _____ BUILD DATE: _____

MY/MAKE/MODEL/BODY STYLE: _____

LOCATION OF KEY LOCKING SYSTEM:

TRANSMISSION TYPE:

Automatic ____; Manual ____; Other ____ (describe: _____)

DRIVE TRAIN TYPE:

Front Wheel ____; Rear Wheel ____; 4-Wheel ____

OPTIONAL RELEASE DEVICES:

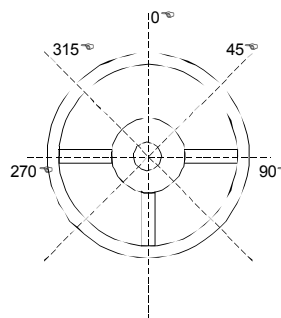
Key ____; Transmission ____; None ____

REQUIREMENT S4.2	PASS	FAIL
Engine cannot be started without utilizing the ignition key.		

With key removed, steering wheel locks:

Yes ____; No ____

Identify locking position on wheel using an arrow.



Key removal prevents forward self-mobility: Yes ____; No ____

If yes describe:

Locking system, with key removed, prevents starting the engine and either steering or self-mobility or both.

16. DATA SHEETS....Continued

REQUIREMENT S4.5	PASS	FAIL
Warning system is activated when the ignition key is left in any switch position except "on" and "start" and the driver door is opened.	_____	_____

REMARKS:

RECORDED BY: _____

DATE: _____

APPROVED BY: _____

16. DATA SHEETS....Continued

FMVSS 114, THEFT PROTECTION
DATA SHEET 2 - AUTOMATIC TRANSMISSION VEHICLES ONLY

VEH. NHTSA NO.: _____ TEST DATE: _____

MY/MAKE/MODEL/BODY STYLE: _____

VEHICLE TEST WEIGHT (kg): _____ WEIGHT OF DRIVER (kg): _____

FUEL TANK LEVEL: _____ (% of max.)

ADDITIONAL WEIGHT OF OPTIONAL ENGINE – IF APPLICABLE (kg): _____

TIRE PRESSURE:

Vehicle Mfg. Recommended (PSI): Front _____; Rear _____

Measured (PSI): LF _____; LR _____; RF _____; RR _____

REQUIREMENT S4.2.1(a)(2)	PASS	FAIL
Key locking system prevents key removal from any shift mechanism detent position except “park”.	_____	<u>see note</u>
Key locking system prevents key removal from any position between the detent positions where the shift mechanism will remain without assistance.	_____	<u>see note</u>
NOTE: In the event that the key can be removed at any of the transmission shift lever positions, the vehicle’s transmission or transmission shift lever shall become locked in park as the direct result of removing the key. If such a mechanism exists, describe the mechanism and its function:	_____	_____
System prevents movement of the shift mechanism out of “park” position after removal of key.	_____	_____

16. DATA SHEETS....Continued

REQUIREMENTS S4.2.1(a)(3)	PASS	FAIL
<p>With the transmission in "park" measure movement of the vehicle down the slope upon releasing the service brake.</p> <p>Test grade: _____ % (9% to 15%)</p> <p>Measured movement: _____ mm (150mm maximum)</p> <p>NOTE: Repeat procedure if vehicle fails on grade in excess of 10%.</p> <p>Test grade: _____ % (9% to 10%)</p> <p>Measured movement: _____ mm (150 mm maximum)</p>	<p>_____</p> <p>_____</p>	<p>see note</p> <p>_____</p>

REQUIREMENT S4.3	PASS	FAIL
<p>Transmission in any position other than "park" or "reverse" and the key locking system in the "off" position. The steering wheel must remain unlocked and the vehicle must remain free to roll.</p>	<p>_____</p>	<p>_____</p>

REMARKS:

RECORDED BY: _____

DATE: _____

APPROVED BY: _____

16. DATA SHEETS....Continued

FMVSS 114, THEFT PROTECTION DATA SHEET 3 – SPECIAL DEVICES

VEH. NHTSA NO.:

TEST DATE:

MY/MAKE/MODEL/BODY STYLE:

REQUIREMENTS S4.2.2(a)	PASS	FAIL
Electrical failure capability permits ignition key removal with transmission shift lever in other than the “park” position. Yes ____ No ____		
Upon key removal steering wheel locks.	_____	_____
Device permits key removal when the transmission is in other than the “park” position. Yes ____ No ____		
The means for activating this device is covered by a non-transparent surface which prevents sight of and activation of the device. The non-transparent surface is removable only by use of a screwdriver or other tool.	_____	_____
Describe the device, its cover and its location:		
Describe how the device is activated:		
Upon key removal, steering wheel locks.	_____	_____

REMARKS:

17. FORMS

LABORATORY NOTICE OF TEST FAILURE TO OVSC

FMVSS NO.: 114

TEST DATE: _____

LABORATORY: _____

CONTRACT NO.: _____; DELV. ORDER NO: _____

LAB. PROJECT ENGINEER'S NAME: _____

TEST SPECIMEN DESCRIPTION:

VEHICLE NHTSA NO.: _____; VIN: _____

PART NO.: _____ MFR: _____

TEST FAILURE DESCRIPTION:

FMVSS REQUIREMENT, PARAGRAPH § _____ :

NOTIFICATION TO NHTSA (COTR: _____

DATE: _____ BY: _____

REMARKS:

17. FORMS....Continued**MONTHLY TEST STATUS REPORT**

FMVSS 114

DATE OF REPORT: _____

NO.	VEHICLE NHTSA NO., MAKE & MODEL	COMPLIANCE TEST DATE	PASS/ FAIL	DATE REPORT SUBMITTED	DATE INVOICE SUBMITTED	INVOICE PAYMENT DATE
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

17. FORMS....Continued**MONTHLY VEHICLE STATUS REPORT**

FMVSS 114

DATE OF REPORT: _____

NO.	VEHICLE NHTSA NO., MAKE & MODEL	DATE OF DELIVERY	ODOM. READING	TEST COMPLETE DATE	VEHICLE SHIPMENT DATE	ODOM. READING
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						